

## Network Collectors - Feature # 244: DHCP collector for Infoblox

<b>Status:</b>	New	<b>Priority:</b>	High
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<b>Created:</b>	01/27/2010	<b>Assigned to:</b>	Vladimir Bravov
<b>Updated:</b>	03/01/2010	<b>Due date:</b>	03/31/2010
<b>Subject:</b>	DHCP collector for Infoblox		
<b>Description:</b>	<p>DHCP-collector functionality.</p> <p>The source data for DHCP collector is the infoblox syslog stream ,which is coming from relay host to the directory /home/nimi/dhcp_syslog on nimisrv system via pipe (FIFO) .</p> <p>The DHCP collector code design to perform the following :</p> <ol style="list-style-type: none"><li>1 Select from syslog pipe-stream the active DHCP leases.</li><li>1.1 The information about DHCP leases should be available in real time ( syslog is one of the option which will be prefer )</li><li>1.2 DHCP source should (must) have 4 critical parameters :<ul style="list-style-type: none"><li>- MAC address;</li><li>- IP given address;</li><li>- start time for this lease;</li><li>- end time of this lease.</li></ul></li><li>2 create new data in NIMI DB for each given DHCP lease with Start time , User name , Mac address, Given IP address. Then store in NIMI DB like as an active lease.</li><li>3 Select from pipe-stream closed lease time and define : End time of lease, Duration ,Disconnection reason. Then updated active lease in NIMI DB .</li><li>4 Check regarding the consistence of old and active leases</li></ol>		

### History

**03/01/2010 04:25 pm - Vladimir Bravov**

- % Done changed from 10 to 80

- Estimated time changed from 70.00 to 80.00

DHCP-collector functionality.

For version 2 :

The source data for DHCP collector is the infoblox syslog stream ,  
which is coming from relay host to snmpbridge system.

DHCP leases are selected from the messages file in directory /var/log.

Version 2 of DHCP collector was designed to use Events stream mechanism.

The first part of DHCP collector( SendDHCPevent.py) :

The SendDHCPevent.py checks the /var/log/messages file and sends dhcp events to Event Dispatcher under DHCP subscription (my-id). Dispatcher should be defined by host and port .

Location of this script is the snmpbridge system

or any other system which collets dhcp leases from infoblox.

The code design to perform the following :

1 Select from /var/log/messages the active DHCP leases.

2 DHCP lease have 3 critical parameters :

- MAC address;

- IP address,which was assigned Infoblox;

- valid duration time for particular lease;

3 Start time for this lease is defined by time stamp in the selected record;

4 End time of this lease is defined by calculating on base :start time and valid diration time.

5 Valid DHCP lease sends to Event Dispatcher ,which is located in production/development system(NIMISRVA/NIMISRV)

6 Termination the valid DHCP lease sends to Event Dispatcher.

Second part of DHCP collector(GetDHCPevent.py) is using event mechanizm to update the NIMI DB.

The code design to perform the following :

- 1 It received information about DHCP leases from Event Dispatcher using the "DHCP" subscription for dhcp events.
- 2 create new data in NIMI DB for each given DHCP lease with Start time , calculated end time, User name , Mac address, Given IP address.  
Then store in NIMI DB like as an active lease.
- 3 Select from Event Dispatcher the closed DHCP lease time and update this active lease in NIMI DB .
- 4 Check regarding the consistence of old and active leases.

The second part of DHCP collector is located in development system (NIMISRV) or production system(NIMISRVA).  
The location depends on which NIMI DB will be used for updating DHCP leases

03/01/2010 04:55 pm - Vladimir Bravov

- File DHCP\_collect.graffle added

03/01/2010 05:00 pm - Vladimir Bravov

- File DHCP\_collect.jpg added

Files			
DHCP_collect.graffle	159.4 KB	03/01/2010	Vladimir Bravov
DHCP_collect.jpg	49.3 KB	03/01/2010	Vladimir Bravov